Corbett maths

Equations: Forming and Solving

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Examples

Workout

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Question 1: I think of a number.
I multiply the number by 3 and then add 5.
The answer is 29.

(a) Form an equation in terms of x.
(b) Solve the equation to find the original number.

Question 2: I think of a number.
I multiply the number by 5 and then subtract 2.
The answer is 58.

(a) Form an equation in terms of x.
(b) Solve the equation to find the original number.

Question 3: I think of a number.
I divide the number by 2 and then add 1.
The answer is 7.

(a) Form an equation in terms of x.
(b) Solve the equation to find the original number.

Question 4: Gregory is x years old.
Daisy is 2 years older than Gregory
The sum of their ages is 40.



(a) Form an equation in terms of x
(b) Solve the equation and work out Gregory's and Daisy's ages.

Question 5: Robert is x years old.
Hannah is 7 years younger than Robert
The sum of their ages is 61.

(a) Form an equation in terms of x
(b) Solve the equation and work out Robert's and Hannah's ages.

Question 6: Michael is x years old.
Jenny is twice as old as Michael
The sum of their ages is 57.

(a) Form an equation in terms of x
(b) Solve the equation and work out Michael's and Jenny's ages.

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Question 7: Fiona is x years old.
Thomas is 3 years older than Fiona.
Cara is twice as old as Fiona.
The sum of their ages is 51.

(a) Form an equation in terms of x
(b) Solve the equation and work out Fiona's, Thomas's and Cara's ages.

Question 8: Alan is x years old.
Barry is ten years younger than Alan.
Kevin is double Alan's age.
The sum of their ages is 54.

(a) Form an equation in terms of x
(b) Solve the equation and work out Alan's, Barry's and Kevin's ages.

Question 9: Rebecca is x years old.
Mary is 8 years older than Rebecca.
Jill is three times older than Mary.
The sum of their ages is 67.

(a) Form an equation in terms of x
(b) Solve the equation and work out Rebecca's, Mary's and Jill's ages.

Question 10: Andy has x pence.
Kelly has 7 pence more than Andy.
Georgia has 9 pence less than Andy.
The total amount of money they have is £1.48



(a) Form an equation in terms of x
(b) Solve the equation and work out how much money each has.

Question 11: Billy has x pounds.
Liam has twice as much money as Billy.
Nicola has three times as much money as Liam.
The total amount of money they have is £180

(a) Form an equation in terms of x
(b) Solve the equation and work out how much money each has.

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Question 12: Farmer Jones has x sheep
Farmer Smith has 100 more sheep than Farmer Jones.
Farmer White has twice as many sheep as Farmer Jones.
In total there are 2500 sheep.



(a) Form an equation in terms of x
(b) Solve the equation and work out how many sheep each farmer has.

Question 13: The cost of a TV is £x
The cost of a DVD player is £45 less than a TV.
The total cost of the TV and DVD player is £235

(a) Form an equation in terms of x
(b) Find the cost of a TV

Question 14: The sum of three consecutive numbers is 51.

(a) Form an equation in terms of x
(b) Solve the equation and work out each number.

Question 15: The sum of five consecutive numbers is 110.

(a) Form an equation in terms of x
(b) Solve the equation and work out each number.

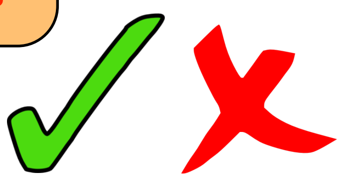
Question 16: A rectangular field is 7 metres longer than wide.
The perimeter of the field is 106m.

(a) Find the dimensions of the field.
(b) Find the area of the field.

Question 17: A rectangular field is 20 metres longer than wide.
The perimeter of the field is 280m.

(a) Find the dimensions of the field.
(b) Find the area of the field.

Answers



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